[ANARTS - Australian National Amateur Radio Teletype Society]

ANARTS News Bulletin 945 9 February 1997

This is the Australian National Amateur Radio Teleprinter Society
with our weekly Rtty broadcast. We transmit each Sunday on the
following frequencies and times :

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  3.545 MHz (Plus/minus 5)   0930 UTC     VK2CTD (COL)
  7.045 MHz  -3              0030 UTC     VK2CTD (COL)
 14.070 MHz (amtor/fec)      0030 UTC     VK2DPM (ALAN)
 14.091 MHz                  0030 UTC     VK2DPM (ALAN
146.675 MHz             0030/0930 UTC     VK2JPA (PAT)
144.850 MHz (ax25 bbs)                    VK2JPA AT VK2WI
146.675 MHz (rtty mmbbs/repeater)         VK2RTY
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INTERNET RADIO-INFO-DIST AT UCSD.EDU

A.N.A.R.T.S. News Bulletin 945 9 February 1997

COLS COLUMN

YOU WILL RECALL LAST WEEKS EPISODE REGARDED JOSEPH HENRYS EXPERIMENTS WITH ELECTRO MAGNETS AND 'INTENSITY' AND 'QUANTITY' BATTERIES. HE CONNECTED A LARGE SINGLE CELL 'QUANTITY' BATTERY TO AN ELECTRO-MAGNET THAT HAD JUST A FEW TURNS OF WIRE. BECAUSE THERE IS LITTLE RESISTANCE IN THE BATTERY AND IN THE WINDING A HEAVY CURRENT FLOWED, PRODUCING A POWERFUL MAGNET, FOR THE HEAVY CURRENT MADE UP FOR FEW TURNS OF WIRE ON THE MAGNET.

IF ONE HAD AMPLE SUPPLY OF WIRE AND INCREASED THE NUMBER OF TURNS, THE CURRENT WOULD BE REDUCED DUE TO THE EXTRA RESISTANCE OF THE WIRE. AS MENTIONED ABOVE THE RESISTANCE OF THE BATTERY IS SMALL, SO ALL THAT WILL AFFECT THE VALUE OF THE CURRENT IS THE NUMBER OF TURNS. IF THE NUMBER OF TURNS IS DOUBLED THE CURRENT IS HALVED BUT THE STRENGTH OF THE MAGNET REMAINS THE SAME.

THIS IS PRECISELY THE EXPERIMENT THAT HENRY PERFORMED. REMEMBER WE HAVE THE BENIFIT OF HAVING LEARNT ELECTRICAL THEORY, HENRY DID NOT. HE CONTINUED HIS EXPERIMENTS WITH A HIGH VOLTAGE, HIGH RESISTANCE OR 'INTENSITY BATTERY' TO USE HENRY'S WORDS. HE CONNECTED A HIGH VOLTAGE BATTERY TO A MAGNET WITH FEW TURNS AND A HIGH CURRENT FLOWED IN SPITE OF THE HIGH RESISTANCE OF THE BATTERY, IT WAS CAUSED BY THE HIGH VOLTAGE.

SAY A BATTERY HAS A RESISTANCE OF 200 OHMS WITH A VOLTAGE OF 50 VOLTS. IT IS CONNECTED TO A MAGNET WITH A RESISTANCE OF 1 OHM. BY OHMS LAW THE CURRENT WOULD BE 50 VOLTS OVER 201 OHMS. IF WE DOUBLE THE NUMBER OF TURNS ON THE MAGNET THE RESISTANCE IS DOUBLED, MAKING THE TOTAL RESISTANCE 202 OHMS. THE CURRENT WOULD BE 50 VOLTS OVER 202 OHMS, HARDLY ANY DIFFERENCE, LESS THAN HALF OF ONE PERCENT.

HOWEVER THE MAGNETIC POWER OF THE MAGNET IS ALMOST DOUBLED BECAUSE THE INCREASED RESISTANCE IN THE WINDING IS VERY SMALL RELATIVE TO THE TOTAL RESISTANCE. HOW FAR CAN WE ADD TURNS TO THE WINDING BEFORE MORE IS LOST THAN GAINED? HENRY'S EXPERIMENTS SHOW THERE IS LITTLE ADVANTAGE TO BE GAINED AFTER THE RESISTANCE OF THE WINDING HAS BECOME EQUAL TO THE

RESISTANCE OF THE BATTERY. IN THE WORDS OF MODERN ELECTRICAL ENGINEERS 'THE RESISTANCE OF THE LOAD (THAT IS THE WINDINGS) MUST BE ''MATCHED'' TO THE RESISTANCE OF THE POWER SOURCE (THE BATTERY)'.

HENRY'S DISCOVERY WAS AND STILL IS OF THE GREATEST IMPORTANCE IN COMMUNICATION ENGINEERING AND NEXT WEEK WE SHALL HAVE A LOOK AT HOW AFFECTS HIGH RESISTANCE RECEIVING EQUIPMENT.

THATS ALL FOR THIS WEEK, STAY TUNED, DE COL VK2CTD.

ANARTS AT WYONG

ANARTS WILL BE THERE AT WYONG. COME AND MEET THE COMMITTEE MEMBERS AND ASK THEM YOUR QUESTIONS ON RTTY, AMTOR, PACTOR AND THE OTHER DIGITAL MODES WHICH ARE SO SUCCESSFUL ON HF (AND CAN BE USED ON VHF AND UHF AS WELL).

WE DO NOT KNOW WHERE THE STAND WILL BE, BUT WE WILL MAKE SURE THERE ARE SIGNS TO GUIDE YOU. COME AND VISIT US AT WYONG RACECOURSE OBN 23RD FEBRUARY ON THE OCCASION OF THE CENTRAL COAST AMATEUR RADIO CLUB FIELD DAY.

Summary of Australian and New Zealand Heard Is. Contacts:

Mode	SAT	10	12	15	17	20	30	40	80	160	Total
CW	1	1	1	15	30	126	32	23	18	6	253
SSB	4	3	1	23	31	325	0	21	39	0	447
RTTY	0	0	0	0	0	13	0	0	0	0	13
Total	5	4	2	38	61	464	32	44	57	6	713

IPS WEEKLY SOLAR AND GEOPHYSICAL REPORT
(31 JANUARY - 06 FEBRUARY)

ISSUED ON 07 FEBRUARY 1997

SUMMARY

Date	31	01	02	03	04	05	06
10cm	72	71	78	80	81	75	74
A	10	5	10	6	4	5 (11 ESTIMATED)	
T	12	6	8	-3	-1	22	28

SOLAR ACTIVITY WAS LOW ON 2ND FEBRUARY, AND VERY LOW OTHERWISE.

THE GEOMAGNETIC FIELD AT LEARMONTH, W.A. WAS QUIET, OR MOSTLY QUIET, ON 31ST JANUARY, 1ST AND 4TH OF FEBRUARY; QUIET TO UNSETTLED ON 2ND TO 3RD, AND 5TH TO 6TH.

FREQUENCIES WERE NEAR PREDICTED MONTHLY VALUES EXCEPT FOR A 30 PER CENT ENHANCED PERIOD DURING LOCAL NIGHT ON 6TH. SPORADIC E WAS PRESENT DURING LOCAL DAWN HOURS ON 2ND, AND SPREAD F WAS REPORTED DURING LOCAL NIGHT ON 6TH.

FORECAST (07 FEBRUARY - 13 FEBRUARY)

SOLAR: VERY LOW

GEOMAGNETIC: UNSETTLED 7TH TO 9TH, WITH A CHANCE OF ACTIVE CONDITIONS DURING LOCAL NIGHT; QUIET THEREAFTER.

FREQUENCIES: MOSTLY NEAR PREDICTED MONTHLY VALUES, WITH A CHANCE OF MILD DEPRESSIONS AFTER LOCAL DAWN ON 8TH AND 9TH.

Courtesy IPS Radio and Space Services.

VK2SG RTTY DXNOTES FOR WEEKENDING 31 JAN. 1997 (BID RTDX0131)

We surely must say tnx to all of VK0IR team for their effort and a special one to Peter, ON6TT for the rtty operation. Surely it has been a record, statistics say 80,673 contact with 2056 qsos on rtty during their stay.
It has been a busy week with the VK0IR operation; really each one must be happy I feel also the west coast guys. But look on sunday 26th it has been reported three different stations on the band all of them listening up; let us hope u have got the right one.....
Our thanks this week go to: ZS5S, W2JGR,WB2CJL, W5KSI, AA5AU, WX5L, KB2ZP, WS7I, ON4BX, PA0HVF, DF2KU, DL7AFV, IK1HSR,I2PKF,I5KG,I5IGQ, I1JQJ and the 425 DX gang, DJ3IW and the Central-Europe DX Cluster DB0SPC the NJ0M Node of Minnesota and the IK5PWJ Cluster.

BANDPASS:
FRIDAY 24
0716-14082 A92GE
0909-14083 FK8FI long path
0928-14082 VK0IR
1119-21085 3DA0CA
1324-14079 XT2DP
1451-14083 YL1XX
1652-14085 9K2HN
1135-14081 VK0IR
1921-14081 9Q5PA
2143-14082 VK2KM
2256-14081 HL5AWS
2315-14083 HF0POL

SATURDAY 25
0017-14082 HF0POL
0130-14081 VK0IR qsx up 5
0451-14081 LU8ERR
0553-14084 LW9DHU/D
0600-14082 VK0IR
0805-14081 OD5NJ
0815-14082 VK0IR
1246-14082 VU2OXX
1253-14085 J28JY
1308-14088 XE3ARV
1319-14084 3B8CF qsx up 5
1319-14083 ES7FQ
1335-14082 A45ZX
1338-14084 A41KT
1410-14081 A92GE
1426-14086 OD5PL
1431-14086 FG5GI

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1433-14081  9X4WW
1446-14086  PJ2MI
1445-14088  A71A
1459-14081  9Q5PA
1502-14087  KP4YA
1524-14086  VK0IR
1548-14085  GU0SUP
1921-14083  EA9JZ
2009-14084  FG5GG
2223-14085  XE1CI

SUNDAY 26
0850-14081  EK6OCM
0938-14089  TA2IO
0940-14087  UA0HZ
1050-14084  TZ6FIC
1106-14082  VK0IR qsx up 2
1129-14089  UT7FP
1210-14080  HK4SAN
1243-14084  J28JY
1255-14085  PJ2MI
1243-14084  J28JY
1323-14082  OY4TN
1331-14088  EU1DX
1355-14086  UT5DX
1359-14081  IS0VBH
1431-14081  J41AG Special card via SV1CIB
1445-14083  V85GA
1519-14083  HK3SGP
1612-14084  UA2FP
1656-14081  4L1BR
1707-14080  VK0IR qsx up 5
1709-14081  A61AN qsx up 4
1733-14087  9X4WW qsx up 5-7
1814-14087  GI0UJG
2141-14085  ZD8DEZ
2154-14081  FG5GG
2234-14088  HK4SAN
2308-14085  HL5AWS
2322-14083  CX8DX

MONDAY 27
0020-14083  CX8DX
0023-14081  VP2EBR
1555-14084  IS0QDV
1718-14082  S79MAD Qsl via GW0WVO
2315-14085  PJ2MI
2318-14082  FO5OP
2344-14081  HL4AWS

TUESDAY 28
1202-14088  J28JY
1205-14086  J41AG
1333- 7031  S79MAD
1901-14086  WP4Q

WEDNESDAY 29
0738-14069  5X4F Pactor
1516-14085  3B8CF
1628-14084  OD5NJ

THURSDAY 30
1551-14084  OD5NJ
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NOTES OF INTEREST:

BARBADOS, 8P. AA4NC and K4MA will operate from 27 Feb. to March 4 as 8P9Z on all bands and modes including RTTY. Qsl via K4MA.

ST. PETER and ST. PAUL ROCKS, PY0. Randy, WX5L who has loaned the equipment for rtty, reports that Karl, PS7KM and Tino, PT7AA will be leaving on 1st February. They hope to be qrv as ZY0SK and ZY0SG starting from 5 February for about two or three weeks.

The VK2SG RTTY DXNOTES are also available on Internet at reflector digital-dx(at)st.rim.or.jp. See also the OH2BUA WebCluster at URL http://www.clinet.fi/jukka/webcluster.html.

For next week's bulletin send your bandpass to Bob, WB2CJL at W5KSI.(hashsign)NOLA.LA.USA.NA.

Gl de (DX2) Luciano, I5FLN at ZS5S.ZAF.AF

ARLD007 DX news

This week's bulletin was made possible with info provided by Randy, WX5L, Michael, KO7V, Tedd, KB8NW, the OPDX Bulletin, Robert, KE2FB, Joerg, YB1AQS, and Contest Corral from QST. Thanks to all.

CAMBODIA, XU. Robert, KE2FB, is with the US Embassy, and is QRV as XU2FB. He works 80 through 10 meters, using CW, SSB, RTTY, and FM on 10 meters. QSL via N4JR.

BANGLADESH, S2. Hannes, DL3NEO, Mar, DL3DXX, and Joerg, DL8WPX/YB1AQS will arrive in Dhaka on February 2, and will be QRV as S21ZX and possibly S21XY. Activity will be on all HF bands, although emphasis will be on the low bands. QSL both calls to DL3NEO.

TURKS AND CAICOS ISLANDS, VP5. Steve, N9CK, will be QRV as VP5/N9CK from February 4 to 11. Activity will be mainly CW and RTTY. He will also be QRV during the WPX RTTY contest using the callsign VP5CK. QSL to N9CK.

The Ohio/Penn Dx PacketCluster
DX Bulletin No. 290. EXCERPTS

Thanks to the Northern Ohio Amateur Radio Society, Northern Ohio DX Association, Ohio/Penn PacketCluster Network, ARRL DX Bulletin, AD1C, K1HT, K3DI, K7BV, KO7V, W7TSQ, K8KS, N8BJQ, KX9X, DL8WPX, EA5KB, F5OZF, F6AJA, PS7AB and ZS5S for the following DX information.

S2, BANGLADESH. By the time you read this, Hannes/DL3NEO, Mar/DL3DXX and Joerg/DL8WPX/YB1AQS should have arrived in Dhaka. Mar and Joerg will stay until February 14th and Hannes until the 17th. Activity will be on all HF bands (sorry NO satellite operations this time). A 20m/66ft Titanex vertical and beverage-parts will be in their luggage. Also included

will be a RTTY modem and other antennas such as a R7, R-7000 and wires.

V2, ANTIGUA. Sean, KX9X, and Matt, NM9H, will be active from February 12-19th, from the Caribbean super-station V26B. They will be on CW, SSB, RS-12, and maybe RTTY.

COMING EVENTS

FEBRUARY	8-9TH	CQ WW RTTY CONTEST

SAGEM TELEPRINTER PART WANTED

VICTOR VK3BVJ IS LOOKING FOR A 'MODULE BOARD' FOR A SAGEM TX20 TELEPRINTER. IF YOU HAVE ONE OF THESE BOARDS FOR DISPOSAL YOU CAN EITHER SEND A MESSAGE TO COL VK2CTD AT VK2WI WHO WILL PASS IT TO VICTOR DURING THE SUNDAY CAST CALLBACKS. OR YOU CAN CONTACT VICTOR VK3BVJ QTHR.

ALSO YOU COULD BRING THE MODULE TO THE CENTRAL COAST FIELD DAY AND GIVE IT TO COL ON THE ANARTS STAND FOR ONWARD RELAY TO VICTOR.

Society information

The Society may be contacted at : PO Box 860, Crows Nest 2065 Australia, for such matters as membership and general enquiries. Enquiries can also be made by packet to the President (Col) VK2CTD at VKWI2, or the Secretary (Pat) VK2JPA at VK2WI.

Email addresses

Broadcast officer	patl(at)pitt.conmusic.su.oz.au
or	patl(at)extro.ucc.su.oz.au
President	colin.davies(at)dse.com.au
or	c.davies(at)sunink.com

73s de Pat VK2JPA Broadcast Officer

--
Dave Horsfall (VK2KFU) | dave@esi.com.au | VK2KFU @ VK2KFU.NSW.AUS.OC | PGP 2.6
Opinions expressed are mine. | D8 15 71 F9 26 C8 63 40 5E 63 5C 65 FC A0 22 99